

REMARKS

Responsive to the Official Action mailed October 4, 2002, applicant has further amended the claims of his application in an earnest effort to place this case in condition for allowance. Specifically, independent claim 1 has been amended. Reconsideration is respectfully requested.

In the Action, the Examiner rejected the pending claims under 35 U.S.C. §112. Applicant has amended claim 1 to specify that the present melt extruded fabric comprises a polypropylene *nonwoven* fabric, in accordance with the present specification. It is believed that this rejection can now be withdrawn. The failure to make this amendment to the claims previously is regretted, in light of the inadvertent failure to make this amendment in accordance with the telephone conference with the Examiner on June 20, 2002.

In rejecting the claims under 35 U.S.C. §103, the Examiner has relied principally upon Japanese Patent No. 02-246232, in view of Hulse et al. U.S. Patent No. 3,454,519.

It is respectfully submitted that the cited Japanese reference, even when considered in combination with Hulse et al., clearly fails to teach or suggest applicant's nonwoven fabric as claimed, comprising thermally bonded polypropylene *filaments*. As will be recognized by those familiar with the art, spunbond fabrics are filamentary in nature, that is, formed from essentially continuous strands of melt-extruded material, thus facilitating highly efficient fabric manufacture, while achieving a desirably high degree of fabric uniformity.

With reference to this Japanese patent, its teachings specifically contemplate the formation of "cut staple fiber" rather than spunbond, continuous filaments, as claimed. As discussed at Section 0014, extruded fibers are crimped, and thereafter cut to a 5 centimeter length.

Spunbond fabrics formed from continuous filaments, in accordance with the present invention, are distinctly different than those formed from staple length fibers. Because staple length fibers, such as contemplated by this Japanese reference, typically must be carded, and otherwise consolidated in order to form fibrous fabric structures, the resultant fabrics typically cannot be formed to the same low basis weights as can be formed from spunbond fabrics. Not only do spunbond fabrics thus permit formation of low basis weight fabrics, which may be very thin, the spunbond process lends to greater fabric uniformity. Because of the costs added by the typical consolidation, carding, and similar processes required for formation of staple fiber nonwoven fabrics, spunbond fabrics such as in accordance with the present invention can be much more cost-effective and economical.

The present claims specify a bending resistance of the recited fabric which is less than about 0.62 grams per gram of fabric. The Japanese reference is silent as to any such maximum bending resistance, and it would be contrary to the teachings of this reference to assume that it contemplates formation of staple length fiber structures which can exhibit low bending resistance. As noted, such structures typically are inherently of a higher basis weight than spunbond fabrics.

As acknowledged by the Examiner, this Japanese reference is silent as to the specific blending of stearamide and erucamide, and does not teach providing a blend having a greater amount of stearamide, as claimed.

Additionally, this Japanese reference does not recognize the requirements of forming a spunbond fabric, since it is limited in its teachings to formation of staple length fiber constructs. Typically, the spunbond process is "aggressive", entailing use of high temperatures, high formation speeds, and relatively high pressures. As such additives must be selected to withstand this heat treatment.

As a consequence, it is respectfully submitted that it would not be an obvious expedient to combine the teachings of the Hulse et al. patent with the Japanese reference, since neither concerns the inclusion of this specifically claimed fatty acid amide blend in a spunbond nonwoven fabric construct. As previously noted, Hulse et al. contemplates lubrication of the disclosed woven construct to "facilitate the freedom of movement of the yarn itself which may, in turn, permit easy recovery to designed, pre-set dimensions" (column 2, lines 3-6).

Additionally, it is respectfully maintained that Hulse et al. is *silent* as to any teachings regarding the use of a fatty acid amide blend comprising stearamide and erucamide, *where the amount of stearamide is greater than the amount of erucamide*. Only applicants' own disclosure teaches this specific form of fatty acid amide blending in a spunbond polypropylene nonwoven fabric construct. It is respectfully maintained that it is inappropriate to modify the teachings of the principle Japanese reference, which is silent as to formation of a spunbond polypropylene fabric, in light of the teachings of

Hulse et al., which fails to overcome the deficiencies in the teachings of the Japanese document.


In the Action, the Examiner has stated that it would be obvious to have a greater amount of stearamide present than erucamide in the fatty acid amide blend. Applicant notes the citation of *in re Aller* in this regard, but it is respectfully maintained that in absence of any teachings of blending two specifically recited fatty acid amides as claimed, it is improper to read beyond the limited teachings of Hulse et al., which merely identifies a plurality of fatty acid amides which can be employed, and acknowledges that "mixtures of amides" can be used. To discover the "optimum or workable ranges" as suggested by *in re Aller*, entails sifting through the 10 different specifically recited fatty acid amides identified in Hulse et al. to arrive at applicant's claimed combination, still without any suggestion in the reference itself as to which fatty acid amide should be used in a greater amount.

Thus, reconsideration of the rejection of the claims under 35 U.S.C. §103 is respectfully requested. Because of the cost-effective manner in which applicants' nonwoven fabric can be formed by the spunbond process, it can be economically used in disposable hygiene products, in which its softness and low bending resistance can be advantageously employed. The expenses associated with formation of a staple fiber fabric, to which the teachings of the Japanese reference are limited, are desirably avoided. The Hulse et al. patent does not overcome the deficiencies in the teachings of the Japanese document, and accordingly, it is believed that applicants' claims are in condition for allowance, and such action is respectfully solicited.

In view of the foregoing, formal allowance of claims 1-6 is believed to be in order. Should the Examiner wish to speak with applicants' attorneys, they may be reached at the number indicated below.

The Commissioner is hereby authorized to charge any additional fee which may be required in connection with this submission to Deposit Account No. 23-0785.

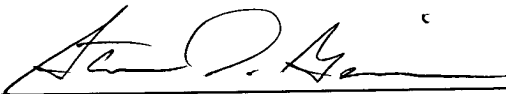
Respectfully submitted,

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CERTIFICATE OF MAILING

I hereby certify that this Amendment is being deposited with the United States Postal Service with sufficient postage at First Class Mail in an envelope addressed to: Commissioner for Patents, Washington, D.C. 20231 on **February 4, 2003**.





U.S.S.N. 09/638,341
Confirmation No. 2943
Soft Polypropylene Melt Spun Nonwoven Fabrics
Claims As Amended

1. A soft, melt extruded polypropylene nonwoven fabric, said fabric comprising thermally bonded polypropylene filaments which thermally bonds individual ones of said filaments to each other and consolidates said fabric containing as a melt additive a blend of fatty acid amides in said polypropylene in an amount of at least 0.02%, said blend comprising stearamide and erucamide, where the amount of stearamide is greater than the amount of erucamide, where the bending resistance of the fabric is less than about 0.62 grams per gram of fabric.

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